Case Histories Cover Sheet

The NAIOMT case study requirement is designed to be a project that allows the NAIOMT examiner to assess your clinical reasoning skills after completion of all of the main NAIOMT courses and in particular to assess whether you grasp the quadrant concept or system. To that end, the peripheral case studies need to reflect the need for and attention to upper or lower quadrant dysfunction that either perpetuated the pathology or caused the pathology. For example, a simple inversion sprain of the ankle is NOT acceptable. If the inversion sprain patient is not healing properly due to dysfunction at the knee, hip or low back that had to be assessed and treated, then it is accepted. IE you cannot write this case study as if you never took the Level III courses.

The spinal case with neurological dysfunction does reflect Level I clinical reasoning for evaluation and initial treatment, but after the neurological dysfunction is resolved, the patient should be assessed for any biomechanical dysfunction that is going to excessively load the injured area in the future. This should be addressed prior to discharge. The spinal case without neurological dysfunction should definitely reflect Level III knowledge either in assessment, treatment or both.

Lastly, if you were trained in some other method beside NAIOMT (i.e. Maitland), please do not write this case study using your previous training. We are trying to assess whether you are competent in the NAIOMT philosophy, not someone else's methodology. You are allowed to employ other techniques in treatment than "just" a mobilization or manipulation NAIOMT taught, but not exclusively. Good example may be that you had to manipulate the ankle using the NAIOMT distraction manipulation and the talar swing test, but you used Mulligan MWM as a follow up treatment after the manipulation. This is acceptable. If all you had down was a MWM technique, it is not acceptable.

If you have any questions or concerns prior to writing your case study, please email Valerie Coolman at: coolman@andrews.edu

Submitting Cases:

IF fulfilling for **CEU credit** submit to Stefanie Marschner at: stefanig@andrews.edu

IF fulfilling for **Academic credit** submit unto LearningHub.

NAIOMT

NAIOMT LEVEL III INTERMEDIATE EXAMINATION

CASE HISTORY GUIDELINES

Spring 2017

From: NAIOMT policies & Procedures 1993, rev. 7/97, 8/98, Reformatted 4/05, 10/05, 5/07
Case history format change 8/10; "Case History Guidelines" further revised & updated 6/12, 3/13

Edited to meet the standards for Andrews University

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OVERVIEW AND PURPOSE

There are three parts to the Level III NAIOMT Examinations, each of which must be successfully completed (within 5 years of the date of the first LIII exam submission) in order to complete the Level IIII examinations to achieve the Level III certification (CMPT):

1. Written examination
2. Oral-practical examination
3. Case Histories

GENERAL OBJECTIVES

In completing the case-history component of the Level III intermediate examination, the candidate is expected to be able to:

1. Describe an all-source, evidence informed evaluation and management sequence for an OMPT patient/client.
2. Demonstrate effective, efficient, all source evidence informed clinical reasoning in all aspects of the process.
3. Apply knowledge of the basic sciences of anatomy, biomechanics, and pathology in the clinical setting.
4. Demonstrate the ability to incorporate relevant literature into the clinical setting.

CASE HISTORY CATERGORIES

Andrews University requires a minimum of four case histories (two for each quadrant). **One in each of the categories:**

1. Peripheral (extremity) joint dysfunction form Level III Upper Quadrant [CHPU]

2. Peripheral (extremity) joint dysfunction from Level III Lower Quadrant [CHPL]
3. Spinal joint dysfunction without neurological signs [CHSWO]
4. Spinal joint dysfunction with neurological signs[1] [CHSW] (*See definition below)*

OMPT contraindicated (CH NO OMT): One case history (within one of the above categories) may describe the evaluation and management of a case where OMPT is currently strongly contraindicated and the patient/client is referred to a medical practitioner. The clinical decision--making of the PT and subsequent medical management of the case must be described in detail. The case must demonstrate an intermediate level of OMPT clinical reasoning (i.e. higher than a basic orthopedic PT level).

WHEN CAN CASE HISTORIES BE SUBMITTED?

- Case should be turned in 10 weeks after the corresponding quadrant.
- All case histories must be submitted electronically to:
    - stefanig@andrews.edu – if fulfilling for **CEU credit**
    - LearningHub – if fulfilling for **Academic credit**

PRE-REQUISITES

Prior to submission of the case-history examinations, each candidate must meet the following requirements:

1. Possess an unrestricted physical therapy license in at least one US State or territory.
2. NAIOMT Level II certificate OR equivalent at Andrew's University OR equivalent of the Orthopedic Division of the Canadian Physiotherapy Association. No other equivalencies are accepted.

CASE HISTORY PUBLICATION

Once submitted, the case history becomes the property of NAIOMT, and cannot be published in any form without the express written approval of NAIOMT. If a case history is submitted for publication prior to being submitted to NAIOMT as an examination case history, the candidate must inform NAIOMT of this fact prior to submission.

On occasion, NAIOMT may wish to use a case history as an example to assist other candidates. In this case, the prior written permission of the candidate will be obtained.

[1] **Neurological sign** is defined as an objective, observable change or evidence of disease with an alteration in neurological conduction i.e. (true) fatigable weakness, measurable sensation changes and/or the alteration of deep tendon reflexes and/or presence of primitive reflexes of recent onset. A facilitated segment or dural irritation is NOT recognized as a neurological sing in this case history category.

POLICIES FOR CASE HISTORY ACCEPTANCE

A Case History will **only be accepted** if all the below policies are adhered to. All submissions not meeting the below criteria *will be returned to the candidates un-graded* and candidates asked to resubmit.

EACH CASE HISTORY MUST BE:

1. Typewritten in English, with a ***maximum of 2200 words*** (excluding reference list) and **submitted electronically.**
2. A description of a patient/client evaluated and managed only by the candidate. No cases where treatment was delegated or where the candidate was supervised by another physical therapist in any way will be accepted.
3. Anonymous. No personal or corporate identifications of the therapist or patients are to be included anywhere in the history.
4. Devoid of abbreviations, unless they are fully explained in parentheses immediately following the first use.
5. Detailed in terms of descriptions of assessment and intervention techniques. DO NOT assume that people know what you are referring to. Be particularly careful with techniques that are named after people.
6. Presented in a professional manner, with attention to spelling, grammar and punctuation. Use spell-check and also ask a colleague (who is not a NAIOMT examiner or faculty) to review the paper.
7. Devoid of comments about race, religion, handicap or sexual preference unless directly applicable to the case.
8. Clearly identified such that each page of the history should be numbered. Also identify on each page, which case history it is (i.e. CHPU – upper peripheral/extremity, CHPL – lower peripheral/extremity, CHSW – spinal dysfunction with neurological signs, CHSWO – spinal dysfunction without neurological signs or CH-NO-OMT.)
9. Electronic submission of the case must be accompanied by the case history supervisor pledge with verification from a licensed physical therapist that the case was a true and accurate case the meets the above criteria.
10. Describe an intermediate level of patient management utilizing OMPT. An OMPT approach primarily utilized manual/hands-on skills for assessment and treatment, is focused on precise segmental/specific joint motion and/or soft tissue changes and typically is managing multiple dysfunctions in one patient. A basic orthopedic case is unlikely to receive a passing grade.

PROCEDURES AFTER ACCEPTANCE OF CASE HISTORY

1. Upon receipt, each case is reviewed to ensure it meets all criteria described above.
2. If accepted, copies of the case histories are sent to NAIOMT examiners or faculty who will review the case and award a grade and/or assign a numerical score between 0 and 100. The minimum passing score is 70/100. The numerical score will not be shared with the candidate. Based on the numerical score, each case will be assigned a result as follows:
    - PASS
    - NO-PASS (FAIL)
    - SAFETY FAIL

NOTIFICATION OF RESULTS & CERTIFICATE

Marking of the case history and review of the results is a lengthy process, but we will make every attempt to notify the candidate of the results within three (3) months of receiving the case history. Notification will be by e-mail. If the case histories are the last component both Level III Quadrants, then Andrews will forward your results to NAIOMT.

PROCEDURE IN THE EVENT OF A NO-PASS

The candidate will be notified by the administrative assistant in the event of a “no-pass or safety fail” of one or more of the case histories. In order to successfully complete the LIII examination component of case histories, the candidate will then need to submit a new case history in the failed category only. The candidate will be provided with a reason for a no-pass or safety fail grade. (See criteria for a no-pass or safety fail below). There is **no academic appeal** for a no-pass or a safety fail.

RESUBMIT OPTION FOR A NO-PASS

The candidate cannot request this option for a case graded a “No Pass”. NAIOMT or Andrews, at their sole discretion, may decide to offer a candidate a “Resubmit Option,” which will be an opportunity for the candidate to respond to examiner questions and concerns related to a case history presentation.

The “Resubmit Option” is offered under specific criteria in which the examiner felt that with clarification of some points there would be a potential to meet the criteria for a pass. It will not be offered if the case history did not meet the policies for case acceptance, or was graded as a safety fail. Details of the policies and procedure for the “Resubmit Option” will be sent to the candidate who is offered this option. The candidate who declines the “Resubmit Option” is then required to submit a new case history.

CASE HISTORY MANDATORY COMPONENTS

Each case MUST be presented using these sub-headings:

1. Subjective Examination/History

This section should provide a ‘picture’ of the patient as a narrative. It should present the age, gender, and a full description of the presenting signs and symptoms. A pain map or detailed description of the symptoms should be included. Questions appropriate to the patient’s presentation should be asked and the resulting information described. Pertinent medical, social, functional status and past history should also be described.

2. Summary & Clinical Reasoning of the Subjective Exam/History

This section should summarize the subjective examination and present an initial hypothesis with supporting data in regards to the patient’s problem. You should us appropriately cited literature references to support your decision. You should then describe your plan for sequencing the objective examination (or other management choices – including referral to another health care provider) and justify your choices, again citing appropriate references.

3. Objective Examination/Tests & Measures

Describe the tests and measures performed and the results. Objective tests and measures should have a scientifically-based rationale and demonstrate the utilization of an all source evidence informed approach. It is not necessary to describe how common tests or techniques are performed, unless the test is unusual or needed modification.

The results of the tests and measures must be clearly described. It is acceptable to include a table to minimize word use. Be mindful of using only those tests and measures appropriate to the case.

If the case presentation and pattern recognition process indicates no need for a full examination or certain common tests, then a discussion of why a full process was not indicated must be included.

4. Summary & Clinical Reasoning of Objective Examination/Tests & Measures

This section should summarize the objective examination and present your updated initial hypothesis with supporting data. You should use appropriately cited literature references to support your decision. You should then describe your plan for the subsequent management choices, whether further assessment, referral to another health care provider, or progression to an evidence informed management plan. Justify your choices, again citing appropriate references.

5. Clinical Reasoning for the Proposed Initial Treatment & Management Plan

In this section, you should discuss in detail the rationale for the initial treatment plan. Develop a detailed and individual prognosis by describing the probably status of the disease, tissue health and/or stage of healing. You should then describe an outline of the OMPT and other treatments proposed. All treatment approaches should have an appropriately referenced, scientifically-based rationale demonstrating the utilization of an evidence informed approach.

6. Initial Treatment/Intervention Procedures and Initial Responses

This section should firstly describe the patient/client’s involvement in the treatment and management decision process. You should then describe in detail the treatment techniques and approaches utilized. Describe the techniques in sufficient detail that another physical therapist could repeat them. The use of a table is acceptable.

Describe the immediate results of the intervention, including a REASSESSMENT of the PATIENTS STATUS. Chosen techniques should reflect an all source evidence informed approach, and not simply be a reiteration of course material.

7. Analysis of the Initial Treatment Results and a Plan for Treatment Modification and/or Progression

Use this section to discuss the response to the initial treatments and management ON THE DAY OF THE INITIAL EVALUATION. If a chosen treatment was not effective, describe why you think it failed and the actions you took to remedy the situation. A failed treatment does not by itself reflect failed management. The re-assessment and subsequent management choices is the important feature of management here. All treatment choices and response should be discussed in the context of the basic sciences (Anatomy, physiology, biomechanics, pathology, etc.).

8. Description of the Subsequent Course of Treatment & Progression

This section should describe the ongoing management of the patient/client, giving clear timeframes (i.e. Session #4, 3 weeks post injury, or post initial evaluation). It is expected that each visit begin with the description of a subjective and objective reassessment (appropriate and targeted) and the subsequent management choices. Describe the treatments and interventions during the episode of care (series of treatments/interventions (and the evidentiary rationale for any modification and progression of the treatments, including changes in the dose of techniques and exercise and spacing of treatments. Group 2-3 treatments together if the assessment and treatments are similar.

The addition of treatment to a body area that was not initially evaluated MUST be preceded by a detail of the assessment and rationale for its inclusion in the plan of care.

9. Rationale for Discharge Including Outcome & Discharge Measures

This section should include information about the decision to terminate the episode of care, including a specific attention to the prognosis. You should provide a summary of the patient's discharge status including reassessment of the key subjective and objective finding from the initial evaluation (especially neurological status). Discuss changes in the asterisk/key intake data. If the patient did not experience complete or satisfactory resolution, discuss why they were discharged at this time and at this point in their progress.

10. Clinical Reasoning of the Prognosis

The prognosis is a significant piece of the case history. It is not acceptable to simply write 'good', 'fair', or 'poor' and then write a few generic liens. You should discuss the patient's probability of continued improvement, or regression, based on their response to treatment in the context of the relevant anatomy, biomechanics, pathology, aggravating and mitigating circumstances (activities, lifestyle, and health factors). Discuss whether further treatment would be cost-effective. The Prognosis should have a scientifically-based rationale with utilization of an evidence-informed approach.

11. References

A reference list is required. It need not be lengthy, but the use of at least a few key references is encouraged. The reference list will not be part of the word count. Any reference given should be a full formal citation in AMA format.

CASE HISTORY GRADING MATRIX

1. 5%	Subjective Examination/History
2. 15%	Summary & Clinical Reasoning of Subjective Exam/History
3. 5%	Objective Examination/Tests & Measures
4. 15%	Summary & Clinical Reasoning of Objective Exam/Tests & Measures
5. 10%	Clinical Reasoning of Proposed Initial Treatment & Management Plan
6. 10%	Initial Treatment Procedures and Responses
7. 10%	Analysis of Initial Treatment Results & Plan for Modification/Progression
8. 10%	Description of Course of Treatment & Progression
9. 5%	Rationale for Discharge including Outcome & Discharge Measures
10. 10%	Clinical Reasoning of the Prognosis
11. 5%	References

CRITERIA FOR A "SAFETY FAIL" IN CASE HISTORIES (REVISED 12/11)

A safety fail in the NAIOMT examination is given when, in the examiners' judgment, the candidate's performance or words gave the potential for a major or moderate adverse event from the utilization of an assessment or treatment technique or failure to perform appropriate medical screening and risk management screening. A major or moderate adverse event is

defined (Carnes 2010) as a medium to long term, moderate to severe intensity and unacceptable event that requires further (medical) treatment and is serious and distressing to the person.

[A Minor adverse event is NOT considered a safety fail, if non-serious or transient, if the person's function remains intact and includes mild or short-lived increase in pain, soreness, stiffness, mild headache increase, muscle soreness or tenderness].

A safety fail in the NAIOMT examination is also given when the physical therapist made decisions, took actions, or excluded actions that either created or prolonged a situation where there was an imminent risk of physical harm to the patient, including but not limited to:

1. A failure to clearly establish that the patient was within the score of physical therapy practice.
2. A failure to clearly rule out the presence of serious pathology relevant to the case presentation.
3. A failure to clearly initiate a time-sensitive referral to an appropriate health care provider once the patient is deemed to be currently outside the scope of physical therapy practice.
4. A failure to demonstrate safe OMPT at all points during the evaluation and management of a patient/client.
5. The candidate describes unethical practices or management approaches outside the scope of physical therapy practice.

CRITERIA FOR A "NO-PASS" IN CASE HISTORIES

The following "no-pass" criteria are NOT equally weighted. Individual deficiencies will result in the deduction of marks:

1. Lack of a plausible OMPT management of a patient/client with a dysfunction in the category selected.
2. Clear attention is not paid to the severity, irritability, and acuity of the patient presentation.
3. The case did not clearly involve the patient/client in the decision-make process.
4. The case does not clearly describe an all source evidence-informed subjective and objective examination sequence appropriate to the patient presentation (includes both under examination and over examination).
5. The case does not clearly describe an all source evidence-informed and reasoned interpretation of the examination findings and pathological processes.
6. The case does not clearly describe an all source evidence-informed and reasoned development of the initial management approach.
7. The case does not clearly describe adequate stress testing or mobility testing prior to treatment.
8. The case does not clearly describe a clear rationale for the selection of and sufficient detail of chose intervention techniques, including the information provided to the patient/client before utilizing joint thrust manipulation to the spine or extremities.
9. The case does not clearly describe the reassessment of major objective/test findings on each occasion, as otherwise indicated during the treatment, and at discharge.
10. The case does not clearly describe the clinical reasoning of the prognosis and discharge planning.
11. Manual physical therapy treatment was indicated but not used. Treatment was "generic" or could have been delegated and performed by a PT assistant or aide.
12. The case does not clearly describe the performance of a neurological examination when indicated in the case presentation of an extremity joint dysfunction.
13. The case does not clearly describe appropriate detail of intervention/treatment whether it is segmental or specific joint mobilization/manipulation technique, specific or global exercise prescription, neuromuscular re-education, ergonomic or postural re-training, neurological or soft tissue techniques or the use of adjunct modalities.

CRITERIA FOR A "NO-PASS" SPECIFIC TO CASE HISTORY OF SPINAL JOINT WITH NEUROLOGICAL SIGNS

1. The case does not clearly describe any true signs of neurological compromise (fatigable weakness, muscle wasting, reflex changes, measureable sensation changes, presence of extra pyramidal reflexes)/
2. Neurological signs resolve in a very short time with no plausible reasoning offered. This may suggest that the signs were not true changes and may have been a pain-inhibited change rather than a true conduction loss.
3. 'Level I' treatment only (i.e. once acute problem is resolving, no treatment or treatment plan is described to address the potential reasons for the dysfunction or for example, adjacent joint dysfunction, segmental stiffness, muscle in-coordination, loss of neural mobility, poor body mechanics or conditioning, etc.).

CASE HISTORY DEFINITIONS (GLOSSARY OF TERMS)

Clinical Reasoning

There are many methods and definitions of clinical reasoning. Simply, clinical reasoning is defined as "The thinking and decision-making associated with clinical practice,that enable therapist to make the best-judged (wise) action for individual patients/clients."

Differential Diagnosis

Fundamental of OMPT is a process of differential diagnosis, which is "A systematic method used to identify unknowns, essentially a process of elimination," or "The process of weighing the probability of one disease/dysfunction versus that of other diseases/dysfunctions possibly accounting for a patient's illness/problems". This is primarily accomplished during the scanning examination and pattern recognition processes.

Eclectic

NAIOMT accepts and expects an eclectic approach, but the focus of the case history must be an OMPT "hands-on" approach that includes a detailed specific or segmental joint assessment and precise intervention. This is true for all the cases whether spinal dysfunction with or without neurological signs and symptoms or the extremity joint dysfunction.

Evidence-informed approach

Evidence-informed manual therapy involves integrating the best available external scientific evidence with individual clinicians' judgments, expertise, and clinical decision-making (Cicerone 2005). All patient management should attempt to utilize and integrate the three (3) components of evidence-based medicine (Sackett et all 200): best research evidence, clinical expertise and patient values/preferences.

Intermediate Level

This examination is at an intermediate level orthopaedic manual physical therapy (OMPT) examination, so the candidate must present case histories in which the assessment and treatment should be primarily at an intermediate level of manual physical therapy, NAIOMT core Level III (3) rather than a general or basic orthopaedic physical therapy approach.

Patient Management

Patient/client management is the process of examination, evaluation, diagnosis, prognosis, intervention and outcomes. (*APTA Guide to PT Practice 2001)*

Scientifically-Based Rationale

All discussions of patient management including differential diagnosis, hypotheses, tests and treatment, and their results should be grounded in the clinical sciences of anatomy, neuro-anatomy, physiology, neurophysiology, rheology, cell biology, biomechanics, patho-mechanics and pathology, etc.

CHECK LIST BEFORE CASE HISTORY SUBMISSION

1. Please read all policies and criteria in this guideline in detail before submitting your case histories.
2. Ask a colleague to read and critique your case before submission (not a NAIOMT examiner)
3. Avoid spelling and grammar errors
4. Re-read the "criteria for a no pass or safety-fail"
5. Re-read the "categories for criteria for a pass"
6. Use the sub-headings listed on pages 4 & 5 and in the template
7. Ensure that your case of a "spinal joint with neurological findings" has true neurological signs or changes
8. Re-check your word count and ensure it is less than the absolute maximum of **2200 words** per case. Strategies for reducing the word count include: avoiding the selection of a complex patient, using tables to summarize assessment findings and interventions, grouping 2-3 similar treatments together etc. Do Not cut critical assessment to reduce the word count.
9. Make sure your name is on all cases.

SUMMARY OF CASE HISTORY SUBMISSION PROCESS

1. Request guidelines
2. Write drafts and final versions of the cases. (Do not wait until the 11th hour!)
3. Carefully proof-read the final versions of your cases (and have a PT colleague or friend read it)

4. Email the case histories to stefanig@andrews.edu if fulfilling for CEU credit, and also attach the case history supervisor pledge. Or submit to LearningHub if fulfilling for Academic credit.
5. If you have questions, please contact us: stefanig@andrews.edu or 269.471.6305

NAIOMT LEVEL III EXAMINATION: CASE HISTORY TEMPLATE

This format is a recommendation that includes the Case History mandatory component headings.

Name
Type of case: Upper Peripheral (Extremity) Joint Dysfunction
Word count: 1999

Your name and case type should be on the first page and in the footer of the document.

1. Subjective Examination/History

2. Summary & Clinical Reasoning of Subjective Exam/History

3. Objective Examination/Tests & Measures

Each case must be presented using these sub-headings

4. Summary & Clinical Reasoning of Objective Examination/Tests & Measures

5. Clinical Reasoning of Proposed Initial Treatment & Management Plan

6. Initial Treatment Procedures and Responses

7. Analysis of Initial Treatment Results & Plan for Modification/Progression

8. Description of Course of Treatment & Progression

9. Rationale For Discharge including Outcome & Discharge Measures

10. Clinical Reasoning of the Prognosis

11. References

Enter your name and the type of the case in the footer. Page numbers are requested as well.